General ETSI presentation

❑ **A European standards organization active in all areas of ICT setting globally-applicable standards :**
"We produce globally applicable standards for Information & Communications Technologies including fixed, mobile, radio, broadcast, internet and several other areas."

❑ **Independent, not-for-profit organization, created in 1988**

❑ **ISO 9001:2000 certified**

❑ **Offering direct participation**
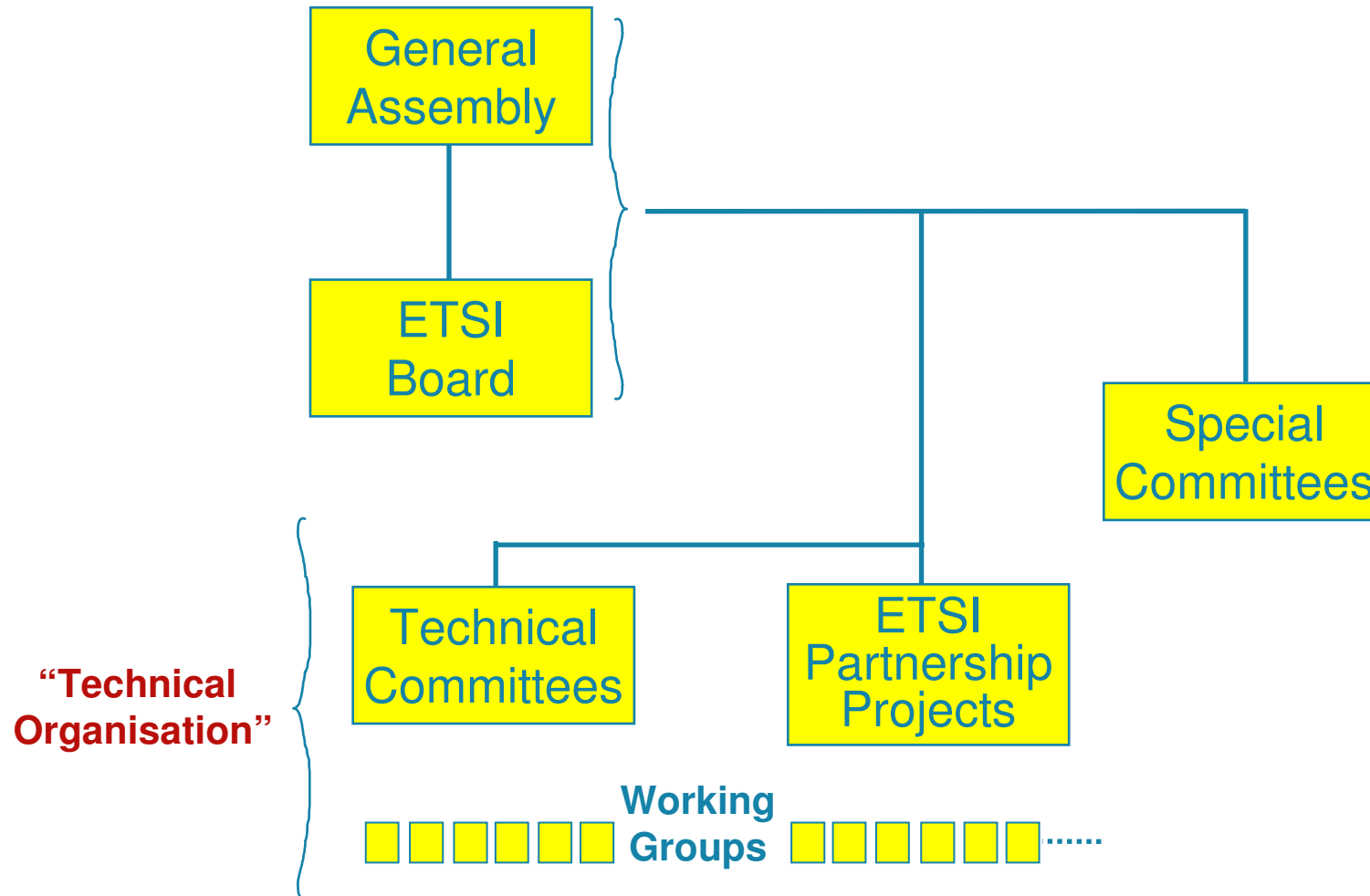
❑ **Our publications are freely available!**

http://www.etsi.org
http://portal.etsi.org

The ETSI structure

General
Assembly

ETSI
Board

Special
Committees

**"Technical
Organisation"**

Technical
Committees

ETSI
Partnership
Projects

**Working
Groups** ......

The ETSI Secretariat gives support to all the different bodies in the Organization

What is ETSI

❑ **Neutral: decision by consensus**

❑ **Well-respected**

❑ **Makes standards on a voluntary basis**

❑ **Represents all market players: network operators, manufacturers, service providers, national administrations (e.g. telecommunications ministry), universities, research organizations, users and others**

❑ **Contributes to market openness**

❑ **Fights technical barriers to trade**

❑ **ETSI was established as a European body and retains European responsibilities. But…**

   ➢ **…many of ETSI's Members are global players…**

   ➢ **…so ETSI seeks to have its standards adopted worldwide**

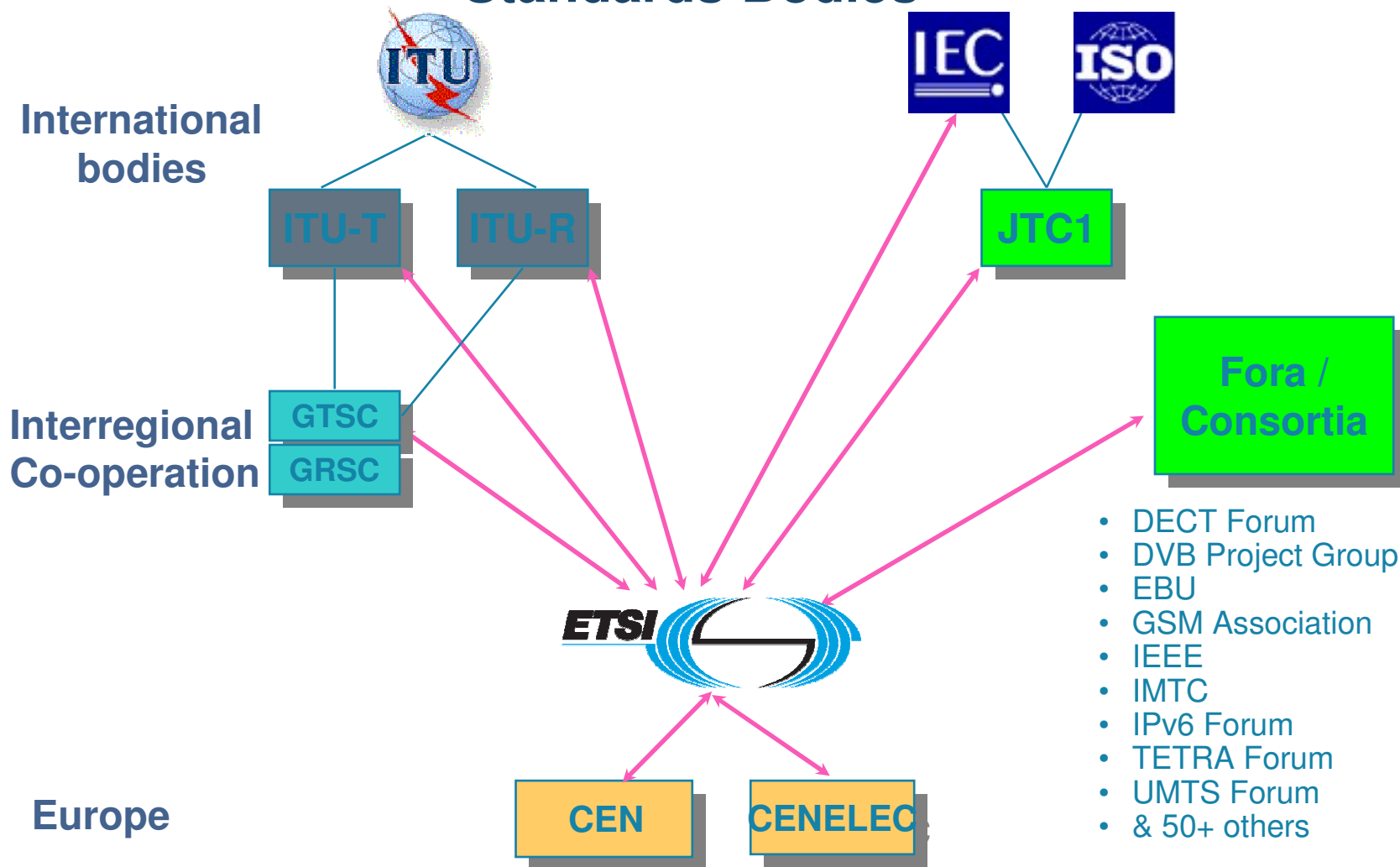# ETSI also protects Members' bright ideas - ETSI's IPR Policy

❑ **Goal:**

➢ **to ensure that an ETSI standard cannot be blocked by the refusal of an IPR holder to grant licences for the use of his Essential IPR**

❑ **Defines the obligations and rights of Members…**

➢ **…in respect of the identification and notification of IPRs essential for ETSI standards**

• **IPR statement and licensing declaration forms on web**

❑ **Defines the obligations of the Institute:**

➢ **Inform users of standards about Essential IPRs, by:**

• **publishing details in SR 000 314**

• **publishing details in standards wherever possible**

• **publishing details on the web**

World Class Standards

ETSI's relations with ITU, IEC & ISO and Standards Bodies

International bodies

ITU-T   ITU-R

Interregional Co-operation

GTSC
GRSC

JTC1

Fora / Consortia

- DECT Forum
- DVB Project Group
- EBU
- GSM Association
- IEEE
- IMTC
- IPv6 Forum
- TETRA Forum
- UMTS Forum
- & 50+ others

Europe

CEN   CENELEC

ETSI is _not_ …

❑ **a REGULATORY body, but…**

➢ **we provide technical specifications to support regulation**

❑ **a CERTIFICATION body, but…**

➢ **we provide specifications and other tools to assist certification**

❑ **a FREQUENCY ALLOCATION body, but…**

➢ **we collect, co-ordinate and contribute frequency requirements for the ICT community**

❑ **part of the European Commission, nor part of CEPT, but…**

➢ **we work closely with these and many other organisations**

ETSI is not a certification body but assists certification

In the framework of <u>EU Directive 1999/5</u> **relevant to terminal equipment:**

➢ **Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity; applied in Member States since 2000**

➢ **The Directive also includes provisions for Telecommunications interfaces:**

• **Network operators are required to declare interfaces in sufficient detail to allow manufacturers to build terminal equipment to use network services. ETSI provides guidance on the declaration of interfaces**

➢ **The Directive requires Network Operators to allow the connection of complied equipment**

ETSI is not a certification body but assists certification (continued)

- ❑ **ETSI does not approve and does not certify conformant equipment**

- ❑ **How ETSI can help you to show conformity? By producing Harmonized Standards:**

  - ➤ **Harmonized Standards provide technical requirements associated with the Essential Requirements of the Directive**

  - ➤ **The Directive 99/5 requires Member States to presume compliance with the Directive, and therefore to allow the marketing of the equipment without impediment, when Harmonized Standards are used**

If you want to issue a deliverable what do you have to do?

- ❑ **Contact the ETSI representative of your company to check if your company is an ETSI Member**
- ❑ **If not, become an ETSI Member**
- ❑ **Choose an ETSI Technical Body and participate in its meetings**
- ❑ **Submit your idea for a new Work Item and be supported by at least 3 other ETSI Members**
- ❑ **Propose a type of ETSI deliverable**
- ❑ **Volunteer to be the Rapporteur of the deliverable**
- ❑ **Work for free**
- ❑ **Be aware of the process of deliverable drafting and approval/publication**
- ❑ **Your proposals are subject to TB approval**

How to become an ETSI Member?

❑ **Contact ETSI Membership and they will give you all the details: membership@etsi.org**

❑ **The fee starts at 6 000 € for SMEs and is evaluated according to the company's Electronics Communications Related Turn Over (ECRT) or its equivalent**

❑ **The cost of each additional unit is 3 380 €.**

❑ **Two new ways to contribute:**

➢ **Micro-Enterprises can now join ETSI with a reduced Unit of Contribution of €3 000 per year**

➢ **Universities, Public Research Bodies and not-for-profit User Associations can join ETSI with a reduced Unit of Contribution of €2 000 per year**

❑ **Some figures on ETSI Membership (March 2008): more than 700 Members from more than 60 countries, across 5 continents**

➢ **546 Full Members**

➢ **124 Associate Members**

➢ **37 Observers**

Different types of ETSI deliverables

❑ **Informative deliverables:**
  ➢ **ETSI Guide (EG): Membership approval procedure**
  ➢ **ETSI Technical Report (TR): Technical Body approval procedure**
  ➢ **ETSI Special Report (SR): special approval procedure**
❑ **Normative deliverables:**
  ➢ **ETSI Standard (ES): Membership approval procedure**
  ➢ **European Standard (EN): National Standards Organizations (NSOs) approval procedure**
  ➢ **Harmonized Standard - EN:**
    • **Entrusted to ETSI by a mandate from EC/EFTA under European Directive 98/34/EC**
    • **Takes into account the applicable essential requirements of the « New approach Directive »**
    • **Approved by NSOs; its reference is announced in the Official Journal of the European Union**
  ➢ **ETSI Technical Specification (TS): Technical Body approval**

❑ **Through these different types of approval before publication there is the possibility for ETSI Members or NSOs to provide their input**

The ETSI standards process

World Class Standards

Drafting **Approval** **Publication**

Work Item introduced

Drafting in technical committee or working group

Approval of draft by technical committee

ETSI Member vote

NSO Enquiry and Vote

IMMEDIATE

If Technical Specification or Technical Report

90 DAYS

If ETSI Standard or ETSI Guide

6 – 12 MONTHS

If European Standard

Different types of ETSI Technical Bodies (TBs)

❑ **ETSI Technical Committees**

❑ **ETSI Special Committees**

❑ **ETSI Partnership Projects**

❑ **Link between TBs:**

➢ **OCG (Operational Co-ordination Group)**

➢ **Liaison Statements between TBs**

➢ **Joint TBs' meetings**

ETSI's Technical Committees

- ❏ **Access, Terminals, Transmission and Multiplexing (ATTM)**
- ❏ **Broadband Radio Access Networks (BRAN)**
- ❏ **Broadcast**
  - • **Joint Technical Committee with European Broadcasting Union (EBU) and CENELEC**
- ❏ **Digital Enhanced Cordless Telecommunication (DECT)**
- ❏ **Standardizing information and communications systems (ECMA)**
  - • **Joint Technical Committee with ECMA**
- ❏ **Environmental Engineering (EE)**
- ❏ **Electromagnetic Compatibility & Radio Spectrum Matters (ERM)**
- ❏ **Electronic Signatures & Infrastructures (ESI)**
- ❏ **GRID**
- ❏ **Human Factors (HF)**
- ❏ **IMS Network Testing (INT)**
- ❏ **Intelligent Transport System (ITS)**

ETSI's Technical Committees (continued)

- ❑ **Lawful Interception (LI)**
- ❑ **Mobile Standards Group (MSG)**
- ❑ **Methods for Testing & Specification (MTS)**
- ❑ **Powerline Telecommunications (PLT)**
- ❑ **Reconfigurable Radio Systems (RRS)**
- ❑ **Railway Telecommunications (RT)**
- ❑ **Safety**
- ❑ **Smart Card Platform (SCP)**
- ❑ **Satellite Earth Stations & Systems (SES)**
- ❑ **Speech Processing, Transmission & Quality aspects (STQ)**
- ❑ **Terrestrial Trunked Radio (TETRA)**
- ❑ **Telecoms & Internet converged Services & Protocols for Advanced Networks (TISPAN)**

Other ETSI Committees

- ❑ **ETSI Project eHealth (eHealth)**
- ❑ **Special Committee on Emergency Communications (EMTEL)**
- ❑ **Special Committee Security Algorithms Group of Experts (SAGE)**
- ❑ **Special Committee User Group**

ETSI's Partnership Projects

❑ **3rd Generation Partnership Project (3GPP)**

❑ **Mobile Broadband for Emergency and Safety Applications (Project MESA)**

➢ **Both partnership projects involve companies and organisations from around the world**

➢ **ETSI Members are able to participate in both of these partnership projects**

Accumulated publication
(publications from the creation of ETSI up to May 2008)

Document type	20 589 Published	76 Adopted awaiting publication	44 In process of adoption (after TB approval)
EN	4 181[1]		30
ES	565		9
EG	199		5
TS	13 621[2]	63	
TR	1 969[3]	13	
SR	54		

(1) including amendments, ETS, I-ETS and TBR.
(2) including GTS.
(3) including TCR-TR, TC-TR and ETR.

After publication of ETSI deliverables what happens?

- ❑ **When a deliverable is published there is no obligation to implement it**

- ❑ **People implement ETSI deliverables because it is their interest to do so**

- ❑ **The only obligation is that ENs are transposed in National Standards: obligation for NSOs and consequently obligation to withdraw conflicting national standards**

- ❑ **But if a manufacturer makes products conformant to an Harmonized Standard Member States must presume conformity**

Who uses/implements ETSI deliverables?

❑ **Our Members and anybody as the ETSI published deliverables are publicly available and free of charge**

❑ **Please go on the ETSI Portal to download any published ETSI deliverable you wish:**

http://webapp.etsi.org/workprogram/SimpleSearch/QueryForm.asp

What is the quality of ETSI deliverables?

❑ **ETSI deliverables are in general recognized for their good quality;**

❑ **Interoperability:**

  ➢ **in creating test specifications ETSI verifies the base protocols; any eventual problem can be repaired;**

  ➢ **manufacturers can participate to interoperability testing events to check deliverables and if needed the TB may revise a deliverable.**

Which feed back does ETSI has from published deliverables?

- ❑ **Comments from anybody as ETSI deliverables are publicly available; on the first page of a deliverable a contact point is indicated: http://portal.etsi.org/chaircor/ETSI_support.asp**

- ❑ **Input from ETSI Members and possibility for them to require for revision of deliverables participating in ETSI TBs and being supported by at least 3 other Members;**

- ❑ **Harmonized Standards: shall be compliant to EU Directive so EC/EFTA or a Member State can raise the safeguard clause if there is a problem with a standard (never happened in ETSI; only theoretical);**

World Class Standards

ETSI EMTEL

(Special Committee on Emergency Communications)

**Producing and maintaining Standards for
Emergency Communications**

What are Emergency Telecommunications?

❑ **Emergency telecommunications cover all communication services, including voice and non-voice, data, location etc…**

❑ **The need for emergency telecommunications includes many scenarios ranging from:**

➢ **a minor road traffic accident, for example**

➢ **to a major incident like a passenger train crash, a terrorist incident, a natural disaster (e.g. an Earthquake, Tsunami).**

❑ **Provision for emergency telecommunications is also a major requirement in disaster situations**

Main responsibilities of EMTEL

❑ **Act as a key coordinator in getting requirements on Emergency Communications, outside ETSI (i.e. from different stakeholders) and inside ETSI (i.e. ETSI Bodies).**

❑ **Provide requirements on issues of network security, network integrity, network behavior in emergency situations, and emergency telecommunications needs in networks**

❑ **Co-ordinate the ETSI positions on EMTEL related issues**

❑ **Be the Interface for emergency communications issues**
  ➢ **between ETSI groups**
  ➢ **and between ETSI and CEC/EFTA, NATO, ITU groups, the CEPT ERO and relevant CEN and CENELEC committees**

User requirements and scenarios

❑ **The requirements are collected to ensure:**

➢ **Communication of individuals with authorities**

➢ **Communication from authorities to individuals**

➢ **Communication between authorities**

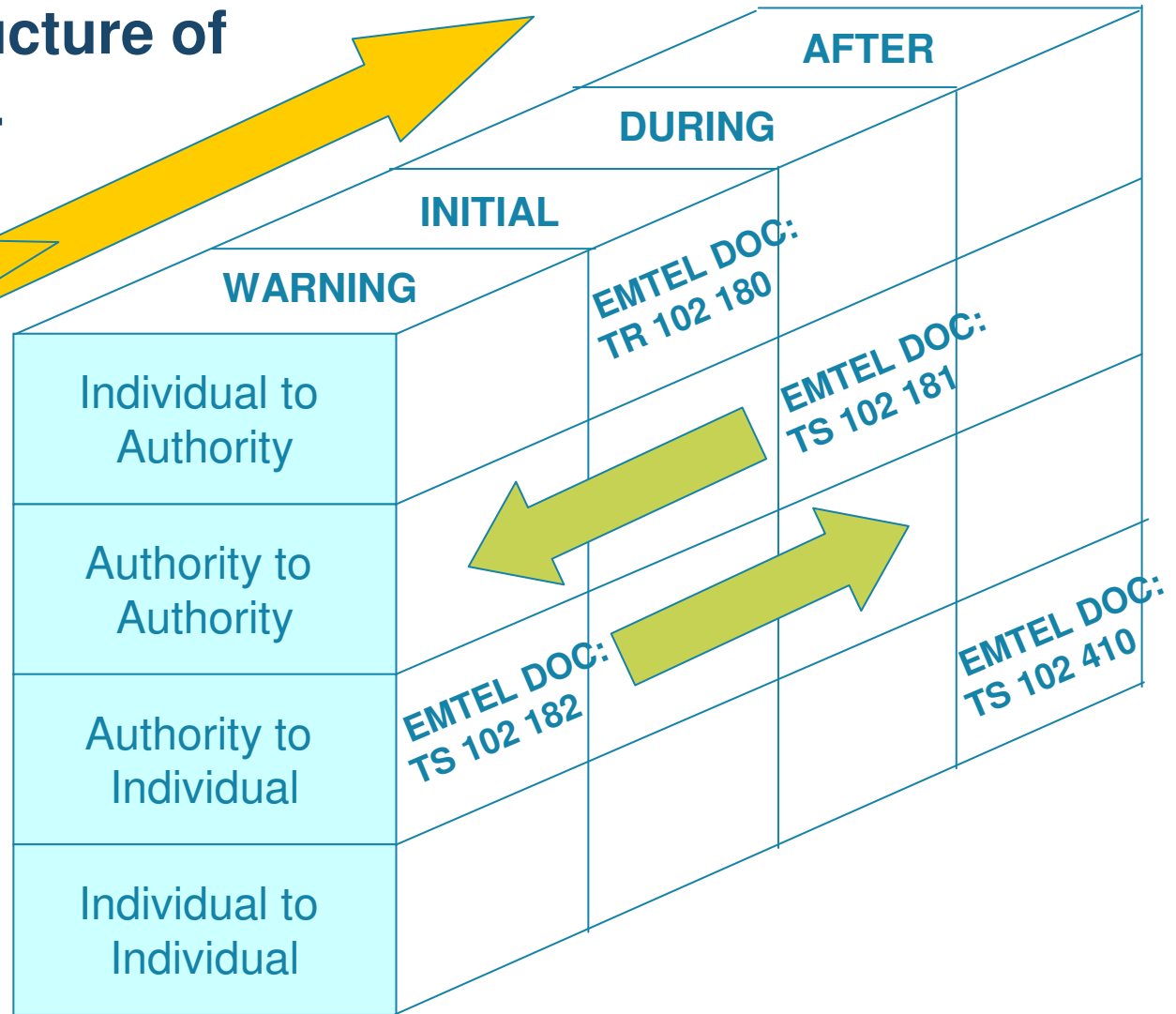➢ **Communication amongst individuals**

❑ **Generally agreed categories to be considered in the provision of emergency communications for practically all types of scenario**

➢ **Including communications resilience and network preparedness**

Document Structure of EMTEL

World Class Standards

Emergency

WARNING
INITIAL
DURING
AFTER

Individual to Authority

Authority to Authority

Authority to Individual

Individual to Individual

EMTEL DOC: TR 102 180

EMTEL DOC: TS 102 181

EMTEL DOC: TS 102 182

EMTEL DOC: TS 102 410

Fixed or Mobile technology?

❑ **Communication for 'Individual to Authority', 'Authority to Individual' and 'Individual to Individual' for voice and data service is from both wireless and wireline access (including nomadicity on fixed line users)**

❑ **Public broadcast services (also often used): are in support of 'Authority to Individual' communications**

❑ **Both fixed and mobile technologies: for 'Authority to Authority' communications are used by public safety organizations in case of emergency in Europe already (same technologies as those used for routine public safety telecommunications)**
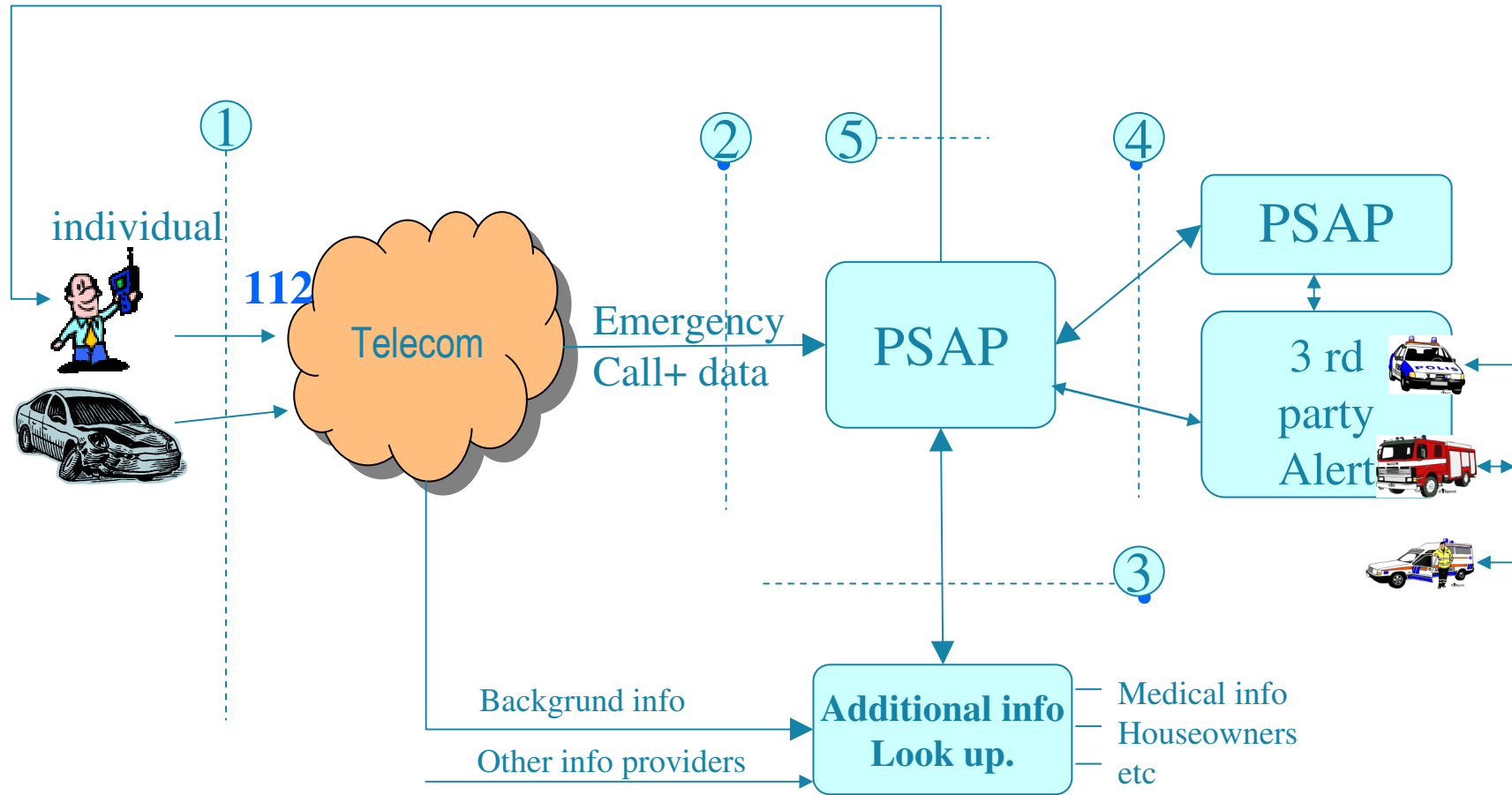
Private or Public networks?

❑ **Telecommunication technologies used for emergency telecommunications are often not different than those used for routine public safety telecommunications**

❑ **Sharing of networks with non-public safety users is commonplace**

❑ **Wireless technologies are likely to be combination of narrowband, wideband and broadband, and the nature of application uses public or private networks**
   ➢ **Public: GPRS and 2/3G**
   ➢ **Private: Wideband TEDS and Broadband PPDR**

❑ **Migration toward IP technologies**

❑ **A combination of both proprietary and ETSI telecommunication technologies are often used**

Interfaces needed to access emergency services

World Class Standards

① individual

112

Telecom

② ⑤ ④

Emergency
Call+ data

PSAP

PSAP

3 rd
party
Alert

③

Backgrund info

Other info providers

**Additional info
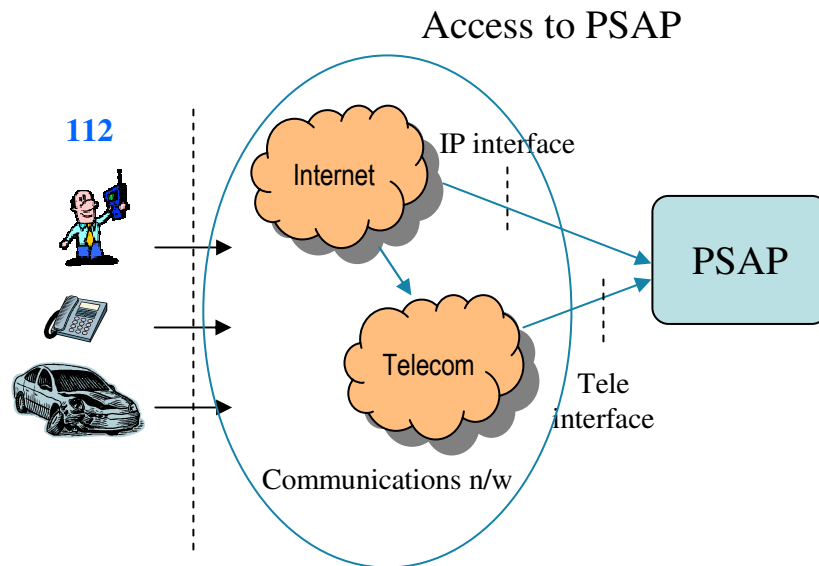Look up.**

Medical info
Houseowners
etc

1. Individual emergency call to authority/ PSAP
2. PSAP Required Information related to 112 call
3. Other data information
4. Authority to Authority
5. Authority to citizen

Requirements and standardisation
The roles of different groups

Access to PSAP

112

Internet

IP interface

Telecom

PSAP

Tele interface

Communications n/w

Expert Group on Emergency Access (EGEA)
CoCom subgroup
- ❑ **High level operational requirements**
- ❑ **Defines mandatory and optional requirements**

EMTEL
- ❑ **Functional requirements (models)**
- ❑ **Elaborates the specification of functions**

ETSI Technical Committees, 3GPP, IETF etc...
- ❑ **Technical standards (implementation)**
- ❑ **Works out possible solutions**

ETSI EMTEL deliverables

❑ <u>TR 102 180</u>: **Basis of requirements for communication of individuals with authorities/organizations in case of distress (Emergency call handling)**
Revised from OCG EMTEL document and published in February 2007

❑ <u>TS 102 181</u>: **Requirements for communication between authorities/organizations during emergencies**
Revised and published in February 2008

❑ <u>TS 102 182</u>: **Requirements for communications from authorities/organizations to individuals, groups or the general public during emergencies**
Revised and published in February 2008

❑ <u>TR 102 410</u>: **Basis of requirements for communications between individuals and between individuals and authorities whilst emergencies are in progress**
Published in August 2007

ETSI EMTEL deliverables (continued)

- ❑ <u>TR 102 444</u>: **Analysis of the Short Message Service (SMS) and Cell Broadcast Service (CBS) for Emergency Messaging applications**
  Published in February 2006

- ❑ <u>TR 102 445</u>: **Overview of Emergency Communications Network Resilience and Preparedness**
  Published in October 2006

- ❑ <u>TR 102 476</u>: **Emergency calls and VoIP: possible short and long term solutions and standardisation activities**
  Approved by EMTEL in May 2008. Should be published soon

- ❑ <u>TR 102 299</u>: **Collection of European Regulatory Texts and orientations**
  Revised and published in April 2008

- ❑ <u>TR 102 758</u>: **Study on unauthenticated and unregistered access to emergency services**
  Currently being drafted by EMTEL

EMTEL matters in other ETSI Bodies

❑ **Although SC EMTEL was formed to specifically address public safety user requirements for Emergency Telecommunications, other Technical Bodies (TBs) within ETSI have been active for some time:**

➢ **Activity co-operating between 3GPP and ETSI TISPAN on the specification of a Mobile Location Positioning protocol for the delivery to the Emergency Authority the position of a caller to the Emergency Services**

➢ **ETSI TISPAN has approved the Emergency requirements for NGN Systems**

➢ **The definition of a SIP interface from the NGN system toward a PSAP may be under consideration, clarification of the need for this so called peer-to-peer sip interface is sought from the EU commission and PSAP Operators.**

❑ **Many standards related to EMTEL topics (more than 700) are developed by other ETSI Bodies i.e. 3GPP, TC TISPAN, EP MESA, TC TETRA and TC ERM**

EMTEL matters in other ETSI Bodies (continued)

❑ **You can find the main standards on the EMTEL Status Report page (ETSI Portal):** http://portal.etsi.org/emtel/status.asp

❑ **And for more details have a look at the ETSI Work Programme, advanced search, by selecting the project code EMTEL:** http://webapp.etsi.org/WorkProgram/Expert/QueryForm.asp

❑ **Liaisons are regularly exchanged between EMTEL and other ETSI Bodies**

Co-operation with external Bodies

- ❑ **A Memorandum of Understanding has been signed between ETSI and NENA (National Emergency Number Association) end of 2005, involving mainly EMTEL and TISPAN**

- ❑ **Mapping of active relationships between ETSI and IETF (Internet Engineering Task Force) updated recently**

- ❑ **Regular liaisons are exchanged with TIA, ITU-T, NATO**

- ❑ **Informal liaison on USA initiatives – EAS (Emergency Alert Service) and WARN (Warning Alert and Response Network)**

- ❑ **Informal liaison on Japanese Earthquake Warning System**

Cooperation with EU Projects regarding emergency

❑ **eCall project (in-vehicle automatic emergency call), project required by the Commission to ETSI:**

  ➢ **EMTEL participated in co-ordination with TC MSG (Mobile Standards Group), former TC ERM TG37 (Intelligent Transport Systems), TC TISPAN (Telecoms & Internet converged Services & Protocols for Advanced Networks) and 3GPP groups**

❑ **NARTUS/Public Safety Communication (PSC) Europe Forum:**

  ➢ **a few EMTEL delegates are involved in this project and keep EMTEL informed regularly**

❑ **OASIS (Open Advanced System for dISaster and emergency management) :**

  ➢ **a presentation should be made by EADS at the next EMTEL meeting**

World Class Standards

Don't hesitate to contact EMTEL

❑ <u>Next EMTEL Meeting</u>: 6th-8th October 2008 within ETSI premises, Sophia Antipolis (France)

❑ For more details you can:

➢ Visit our ETSI EMTEL Portal:
http://portal.etsi.org/portal_common/home.asp?tbkey1=EMTEL

➢ Browse the ETSI EMTEL Web site: www.emtel.etsi.org

❑ Contact the EMTEL Chairman at:
KenMottBAPCO@aol.com

❑ Contact me at:
emtelsupport@etsi.org or chantal.bonardi@etsi.org